

17. The method according to claim 16, wherein said reducing substance is formed from at least part of said crystallization promoter.

18. The method according to claim 16, wherein an oxygen or nitrogen compound in the inner layer is formed by oxidation of said reducing substance, and said compound is a solid up to a temperature of at least 1450°C.

19. The method according to claim 16, wherein said reducing substance has a reducing action that is adjusted by reducing conditions provided during preparation of said inner layer.

20. The method according to claim 19, wherein said inner layer is produced by arc melting using at least one graphite electrode.

21. The method according to claim 17, wherein said reducing substance has a reducing action that is adjusted by reducing conditions provided during preparation of said inner layer.

22. The method according to claim 16, wherein said reducing substance is formed from an initial substance which contains one or more of the elements titanium, tungsten, molybdenum, silicon, zirconium or a compound of one or more of said elements.

23. The method according to claim 17, wherein said reducing substance is formed from an initial substance which contains one or more of the elements titanium, tungsten, molybdenum, silicon, zirconium or a compound of one or more of said elements.

24. The method according to claim 18, wherein said reducing substance is formed from an initial substance which contains one or more of the elements titanium, tungsten, molybdenum, silicon, zirconium or a compound of one or more of said elements.

25. The method according to claim 19, wherein said reducing substance is formed from an initial substance which contains one or more of the elements titanium, tungsten, molybdenum, silicon, zirconium or a compound of one or more of said elements.

26. The method according to claim 16, wherein said reducing substance is formed from an initial substance which contains an alkaline-earth metal compound containing one or more of the elements titanium, tungsten, molybdenum, silicon, or zirconium.

27. The method according to claim 22, wherein the initial substance for the reducing substance contains barium titanate or barium zirconate in a concentration between 0.003 mol % and 0.02 mol % in a spreading material.

28. The method according to claim 27, wherein the barium titanate or barium zirconate is present in the spreading material in a concentration between 0.005 mol % and 0.01 mol %.

29. The method according to claim 22, wherein the reducing substance contains at least one of titanium silicide and tungsten silicide present in a concentration between 0.002 mol % and 0.5 mol %.

30. The method according to claim 29, wherein the titanium silicide or tungsten silicide is present in a concentration between 0.004 mol % and 0.4 mol %.

31. The method according to claim 16, wherein said inner layer is produced using SiO_2 grains which contain said reducing substance or which contain a feed material for forming said reducing substance as a dopant.

32. The method according to claim 16, wherein at least one further reducing substance of a different chemical composition from the first reducing substance are introduced into said inner layer at the same time.

33. The method according to claim 16, wherein a concentration gradient of said reducing substance is set in said inner layer.

34. The method according to claim 16, wherein said crystallization promoter comprises Al_2O_3 present in a concentration between 0.15 and 0.5 mol %.

35. The method according to claim 16, wherein said crystallization promoter comprises Al_2O_3 present in a concentration between 0.2 and 0.3 mol %.